

In the claims:

1. (previously amended) An electrosurgical catheter, comprising:
a shaft having a shaft proximal end portion and a shaft distal end portion;
an electrode support arranged on the shaft distal end portion, the electrode support having a support distal end;
at least one active electrode disposed on the support distal end, wherein the at least one active electrode comprises a metal wire comprising from about 75% to about 99.95% platinum and from about 0.05% to about 25% iridium; and
at least one return electrode disposed on the shaft distal end portion and wherein the at least one return electrode is arranged on an insulating liner, and the insulating liner is disposed on the shaft.
2. (cancelled).
3. (previously amended) The electrosurgical catheter of claim 1, wherein the insulating liner comprises a polyimide.
4. (original) The electrosurgical catheter of claim 1, wherein the at least one active electrode comprises a loop portion consisting essentially of an alloy of platinum and iridium.
5. (original) The electrosurgical catheter of claim 1, wherein the at least one active electrode comprises a plurality of active electrodes, each of the plurality of active electrodes is in communication with a corresponding one of a plurality of active electrode leads, each of the plurality of active electrode leads comprises a wire having a diameter in the range of from about 0.002" to about 0.008", and the wire comprises an alloy of platinum and iridium.

6. (original) The electrosurgical catheter of claim 1, wherein the at least one active electrode is in communication with an active electrode lead, the active electrode lead comprising a distal active electrode lead portion and a proximal active electrode lead portion coupled to the distal active electrode lead portion, wherein the distal active electrode lead comprises from about 75% to about 99.95% platinum and from about 0.05% to about 25% iridium.

7. (original) The electrosurgical catheter of claim 6, wherein the proximal active electrode lead portion comprises at least 50% molybdenum.

8-26. (Cancelled)

27. (original) An electrosurgical catheter, comprising:
a shaft having a shaft proximal end portion and a shaft distal end portion;
an electrode support arranged on the shaft distal end portion, the electrode support having a support distal end, a support proximal end, and a belly portion located between the support distal end and the support proximal end, wherein the width of the belly portion is greater than the width of the shaft;
at least one active electrode disposed on the electrode support; and
at least one return electrode disposed on the shaft distal end portion at a location proximal to the electrode support.

28. (original) The electrosurgical catheter of claim 27, wherein the shaft comprises a material selected from the group consisting essentially of a polyether-based polyamide, polyurethane, polyethylene and nylon.

29. (previously amended) The electrosurgical catheter of claim 27, wherein the electrode support comprises a material selected from the group consisting of: a ceramic, a glass, polytetrafluoroethylene, urethane, a polyurethane, a polyimide, and a silicone rubber.

30. (original) The electrosurgical catheter of claim 27, wherein the electrode support tapers from narrow to broad from the support distal end to the belly portion.

31. (original) The electrosurgical catheter of claim 30, wherein the electrode support tapers from broad to narrow from the belly portion to the support proximal end.

32. (original) The electrosurgical catheter of claim 30, wherein the electrode support comprises a silicone rubber.

33. (original) The electrosurgical catheter of claim 27, further comprising at least one lumen extending along the shaft.

34-40. (Cancelled)

41. (currently amended) An electrosurgical catheter, comprising:
a shaft having a shaft proximal end portion and a shaft distal end portion;
an electrode support arranged on the shaft distal end portion, the electrode support having a support distal end, a support proximal end, and a belly portion located between the support distal end and the support proximal end;
at least one active electrode disposed on the electrode support, wherein the at least one active electrode is located distal to the belly portion; and
a return electrode disposed on the shaft distal end portion proximal to the electrode support, the return electrode in communication with a return electrode lead
and wherein each of the at least one active electrodes comprises a metal wire, and the metal wire comprises a material selected from the group consisting of platinum, iridium, molybdenum, titanium, aluminum, nickel, tungsten, and tantalum.

42. (original) The electrosurgical catheter of claim 41, wherein the at least one active electrode comprises a plurality of active electrodes, and each of the plurality of active electrodes comprises a loop electrode.

43. (original) The electrosurgical catheter of claim 42, wherein each of the loop electrodes comprises a first free end, a loop portion, and a second connected end.

44. (original) The electrosurgical catheter of claim 43, wherein each of the second connected ends is in communication with a distal active electrode lead.

45. (original) The electrosurgical catheter of claim 44, further comprising at least one proximal active electrode lead, each of the at least one proximal active electrode leads in communication with a corresponding one of the distal active electrode leads.

46. (original) The electrosurgical catheter of claim 44, wherein each of the loop electrodes and each of the distal active electrode leads consists essentially of platinum.

47. (original) The electrosurgical catheter of claim 44, wherein each of the loop electrodes and each of the distal active electrode leads consist essentially of a platinum-iridium alloy.

48. (original) The electrosurgical catheter of claim 44, wherein each of the loop electrodes and each of the distal active electrode leads comprise from about 75% to about 99.95% platinum and from about 0.05% to about 25% iridium.

49-51. (Cancelled)

52. (original) The electrosurgical catheter of claim 41, wherein each of the at least one active electrodes comprises a metal wire having a diameter in the range of from about 0.002" to about 0.020".

53. (original) The electrosurgical catheter of claim 41, wherein each of the at least one active electrodes includes a loop portion comprising a metal wire having a cross-sectional shape selected from the group consisting of substantially round, substantially square, and substantially triangular.

54. (original) The electrosurgical catheter of claim 41, wherein each of the at least one active electrodes includes a loop portion comprising a metal wire having a cross-sectional shape including at least one cusp or serration.

55. (original) The electrosurgical catheter of claim 41, wherein the width of the belly portion is greater than or equal to the width of the shaft.

56. (original) The electrosurgical catheter of claim 41, wherein the support distal end portion is substantially conical in shape.

57. (original) The electrosurgical catheter of claim 41, wherein each of the at least one active electrodes includes a loop portion, and the loop portion is curved.

58-60. (Cancelled)

61. (original) The electrosurgical catheter of claim 41, wherein the return electrode comprises an annular band of a metal.

62. (original) The electrosurgical catheter of claim 61, wherein the return electrode consists essentially of platinum.

63. (original) The electrosurgical catheter of claim 61, wherein the return electrode consists essentially of a platinum-iridium alloy.

64. (original) The electrosurgical catheter of claim 41, wherein the return electrode comprises from about 75% to about 99.95% platinum and from about 0.05% to about 25% iridium.

65. (original) The electrosurgical catheter of claim 41, wherein the shaft is at least substantially rigid and has a length in the range of from about 120 cm to about 140 cm.

66. (original) The electrosurgical catheter of claim 41, wherein the shaft is flexible and has a length in the range of from about 120 cm to about 150 cm.

67. (original) The electrosurgical catheter of claim 41, wherein an external surface of the shaft distal end has an external hydrophilic coating.

68. (original) The electrosurgical catheter of claim 41, wherein the return electrode comprises notches to increase a surface area of the return electrode.

69. (original) The electrosurgical catheter of claim 41, wherein the return electrode comprises a pitch coil to minimize current induction.

70-102. (Cancelled)